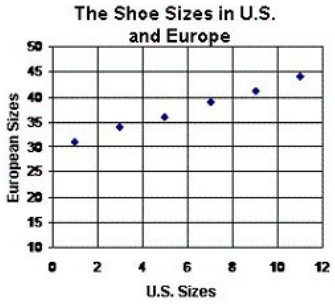
Name: **Date:** **Period:**

Secondary 1 Daily Math Chapter 4 REVIEW

1. Construct a scatter plot of the number of people watching a movie and the number of veggie burgers sold.

Number of People	11	13	21	21	26
Veggie Burgers Sold	6	8	15	12	11

2. What kind of relationship does the following scatter plot show?



Write an equation of the line with the given slope and y-intercept.

3. slope: $-\frac{4}{9}$, *y*-intercept: –9

4. slope: –0.6, *y*-intercept: 7

5. Graph the line with the given slope and *y*-intercept. slope = $\frac{6}{5}$, *y*-intercept= -3

6. Graph the equation using the slope and *y*-intercept.
$2x + y = 4$

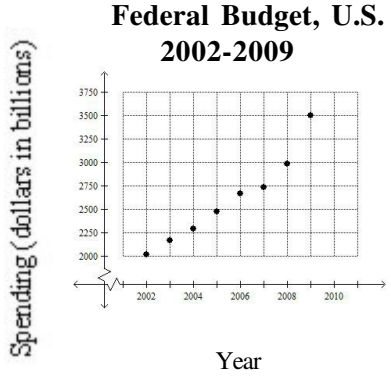
Write an equation of the line that passes through each point with the given slope.

7. (5, 5), $m = -3$

Write the slope-intercept form of an equation of the line that passes through the given point and is parallel to the graph of the equation.

8. (–3, –1), $y = -\frac{2}{3}x + 2$

9. Determine whether the graph shows a positive correlation, a negative correlation, or no correlation. If there is a positive or negative correlation, describe its meaning in the situation.



10. Graph the line with the given slope and y-intercept.

slope = $\frac{5}{3}$, y-intercept= –2

Write an equation of the line that passes through the pair of points.

11. (–2, 10), (5, 24)

Write the equation in slope-intercept form.

12. $y - 3 = -3(x + 1)$

13. What is the slope of the line that passes through (a, b) and $(-a, b)$.

Find the slope of the line that passes through the pair of points.

14. (–3, –1), (–1, 4)

LEAVE OUT THIS PAGE!

15. $y+9=-2x^3$

16. $5(3-x)=2y$

17. $\frac{3}{x}=4y-1$

Solve the equation. Then check your solution.

15. $-90 = n - 39$

16. $x - \frac{2}{3} = \frac{4}{5}$

17. $-\frac{1}{6} + a = -\frac{7}{8}$

18. $-7x - 15 = -99$

19. $5z + 8 = 8z + 26$

20. $2 - 6z = 2z + 50$

Graph the equation.

21. $y = -3x - 4$

22. Graph the equation using the slope and y-intercept.

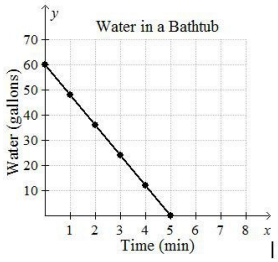
$x - y = -10$

Beach Bike Rentals charges $5.00 plus $0.20 per mile to rent a bicycle.

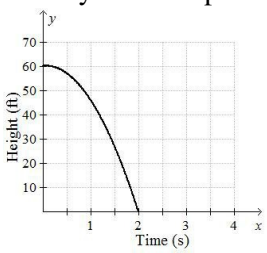
23. What is the cost of renting a bike and riding 10 miles?

24. If $f(x) = -3x + 9$, find $f(-2)$.

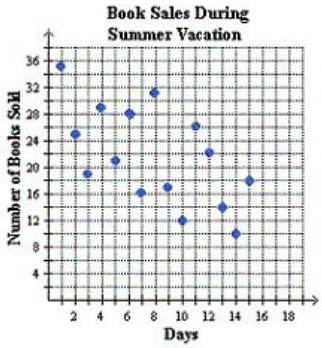
25. The graph shows the amount of water in a bathtub since the drain plug was pulled. Identify and interpret the *y*- intercept of the graph.



26. Troy drops a pebble from a bridge into the river below. The graph shows the height of the pebble after he drops it. Identify and interpret the *y*-intercept.



27. The scatter plot shows how many books were sold at a book store during the first fifteen days of a summer vacation. If a relationship exists, make a conjecture about the number of books that will be sold on the 18^{th} day of the summer vacation.



28. Write the slope-intercept form of an equation for the line that passes through $(-3, -2)$ and is perpendicular to the graph of the equation $y = \frac{2}{5}x + 3$.

29. Determine if $y = 4x + 5$ and $y = \frac{1}{4}x - 2$ are perpendicular. Explain.

30. Cindy started her bank account with $400, and she deposited $50 per week. Write a linear equation in slope-intercept form to find the total amount in her account after *w* weeks. Then graph the equation.

;

31. Are the following equations linear? Write 'yes' or 'no'.

a) $y = 6x - 12$
b) $4x - 6x = 7$
c) $\frac{1}{2}x - 3y = 4$
d) $2y - \frac{3}{x} = 8$
e) $x^2 + 2y = 2$

32. Write $y = 6x - 12$ in standard form.

33. **7 MARATHON** The number of entrants in the Boston Marathon every five years since 1975 is shown. Let x be the number of years since 1975.

Year	1975	1980	1985	1990	1995	2000	2005	2010
Entrants	2395	5417	5594	9412	9416	17,813	20,453	26,735

a. Find an equation for the median-fit line.

b. According to the equation, how many entrants were there in 2003?

34. The prices of the eight top-selling brands of jeans at Jeanie's Jeans are given in the table below.

Sales Rank	1	2	3	4	5	6	7	8
Price ($)	43	44	50	61	64	135	108	78

a. Find the equation for the regression line.

b. According to the equation, what would be the price of a pair of the 12th best-selling brand?

c. Is this a reasonable prediction? Explain.